MENDOCINO COUNTY

Site name: MacKerricher State Marine Conservation Area

Year established: 1970
Approximate Area: 0.54 nm^2 **Approximate Shoreline length:** 3.30 nm
Approximate Depth range (feet): 0 to 18.

Habitat types: Exposed sand and impacted hard bottom habitat. Significant reef structure throughout the MPA at Laguna Point. Offshore habitat includes sand and hard bottom substrate. Primary habitats are sand beach, rocky intertidal, headland, kelp bed.

Surrounding habitat types: Extensive sandy areas to the north; to the south there is extensive hard bottom rocky reef beyond one mile from shore. Directly offshore, the substrate is hard bottom with high vertical relief (> 10ft).

Summary of existing regulations: Only the following species may be taken recreationally: finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.

Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, squid, algae (except giant kelp and bull kelp) and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.

Primary objectives: This site met the criteria for State Park-Underwater Park established by the California State Parks and Recreation Commission in the Underwater Parks Master Plan. Underwater parks consist of relatively spacious areas of outstanding scenic or natural character, containing significant historical, archaeological, ecological, or other features. The purpose of an underwater park is to preserve these natural, scenic, and cultural values, and to perpetuate them as outstanding examples of California's underwater environment and history. These criteria also include an area=s proximity to an established terrestrial park.

In the Department of Parks and Recreation's (State Park) general plan for MacKerricher, the stated purpose of this site is "to make available to the people for their inspiration, enlightenment, and enjoyment, in an essentially natural condition, the outstanding scenic features and natural values, including offshore marine environs and submerged lands…" A stated goal is "to identify, protect, and perpetuate the diversity of existing ecosystems which are found at Manchester State Park, and are representative of California's seacoast." A stated objective is "to identify and protect…sensitive natural resources found in the park."

Existing Enforcement: The area is currently patrolled by State Park rangers and Department wardens.

Baseline and ongoing monitoring and research studies: The State Department of Parks and Recreation Parks (State Park) periodically conducts underwater biotic inventories of its underwater park

units and accompanying species lists are available (DeMartini 1991). In response to the Marine Life Protection Act and the Marine Managed Areas Improvement Act State Park is currently reviewing and evaluating State Parks, Underwater Parks, and Reserves. High resolution digital elevation model (DEM) bathymetry mapping was completed in 2001 from Noyo Harbor to Laguna Point out to one mile by a CDF&G contract with California State University at Monterey Bay. Baseline fish and invertebrate surveys were started by CDF&G in 2001 using an ROV (20 B 50 m depth).

Basic Evaluation: The area presently offers little in the way of resource protection since only certain invertebrates are protected from harvest. However, the area does function well by providing opportunities for recreation and scientific research. MacKerricher State Marine Conservation Area is just to the north of the city of Fort Bragg and is a popular destination for recreational abalone “shore-pickers” and divers. The open-ocean exposure of the MPA is unsafe for launching watercraft, thus recreational fishing is restricted to the shoreline. The intertidal zone at Laguna Point on the north end of the MPA is commonly used for research and educational activities and is the site of a large haul out and pupping area for harbor seals. Red sea urchins and nearshore finfish are harvested commercially along the southern portion of the MPA. The area is small, has limited public access to the water, and has on-site enforcement personnel. There is also good historical baseline data on invertebrate populations.

Published references related to use of this MPA as a research tool: 42, 80, 82

Site name: Pt. Cabrillo State Marine Conservation Area

Year established: 1975
Approximate Area: 0.07 nm^2 **Approximate Shoreline length:** 0.35 nm
Approximate Depth range (feet): 0 to 180

Habitat types: Headlands and protected coves with sand beaches. Habitats include rocky intertidal, sand beaches, kelp beds, and coastal tributaries. Offshore habitat consists of soft and hard bottom substrate.

Surrounding Habitat types: Adjacent nearshore habitat is similar to that within the MPA.

Summary of existing regulations:
Take of all living marine resources is prohibited except the commercial take of finfish and marine aquatic plants.

Primary objectives: Point Cabrillo was originally designated as a "Reserve", and no legally mandated mission accompanies the reserve classification. Each reserve was created on a case-by-case basis to meet general goals of resource protection. Since these areas were established by the Fish and Game Commission, the authority to restrict collection or harvest of finfish did not pertain to commercial fishing.

Existing Enforcement: The shoreline is monitored by State Park rangers and Department wardens.

Baseline and ongoing monitoring and research studies: State Parks baseline evaluations available. High resolution digital elevation model (DEM) bathymetry mapping was completed in 2001 from Russian Gulch to Jughandle Point out to one mile by a CDF&G contract with CSUMB. Baseline fish and invertebrate surveys were started by CDF&G in 2000 and 2001 using an ROV (20 B 80 m depth).

Basic Evaluation: Pt. Cabrillo State Marine Conservation Area is a key site for Department red sea urchin, *Strongylocentrotus franciscanus,* and red abalone, *Haliotis rufescens,* dive surveys. Data from dive surveys at the site have resulted in several publications which have contributed to the management of abalone and urchin. The hard bottom areas in this MPA have been extensively mapped, and contain complex, high relief habitat for nearshore fish and invertebrates representative of the surrounding areas. Surveys have indicated that red urchin abundance is greater within the MPA than in adjacent fished areas. This MPA is one of the unusual protected areas that are currently closed to recreational fishing but open to commercial fishing for finfish.

Published references related to effectiveness of this MPA: 85
Published references related to use of this MPA as a research tool: 10, 63, 79, 80, 82, 83, 84

Site name: Russian Gulch State Marine Conservation Area

Year established: 1970
Approximate Area: 0.06 nm^2 **Approximate Shoreline length:** 1.82 nm
Approximate Depth range (feet): 0 to 18

Habitat types: Headlands and protected coves with sand beaches. Offshore substrate consists of a mix of soft and hard bottom. Habitat includes kelp beds, surf grass, sand beaches, and rocky intertidal.

Surrounding habitat types: Similar intertidal and subtidal habitats and small sand beaches are found to the north and south. To the south are the Mendocino Headlands and large rock islands. Pt. Cabrillo State Marine Conservation Area is located approximately four miles to the north.

Summary of existing regulations:
Only the following species may be taken recreationally: finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.

Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae (except giant kelp and bull kelp) and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.

Primary objectives: This site met the criteria for State Park-Underwater Park established by the California State Parks and Recreation Commission. These criteria include marine area natural, recreational, cultural, and scenic underwater resources, as well as its proximity to an established terrestrial park.

Existing enforcement: This area is regularly patrolled by State Park rangers and Department wardens.

Baseline and ongoing monitoring and research studies: The Department of Parks and Recreation (DPR) conducts underwater biotic inventories of its underwater park units and accompanying species lists are available (DeMartini, 1990). In response to the Marine Life Protection Act and the Marine Managed Areas Improvement Act, DPR is currently reviewing and evaluating State Park Underwater Parks and Reserves.

Basic Evaluation: The area presently offers little in the way of resource protection since only certain invertebrates are protected from harvest. However, the area does function well by providing recreational opportunities. Due to the close proximity of this MPA to the towns of Fort Bragg and Mendocino and its high scenic value, Russian Gulch is a highly used state marine conservation area. This area offers shoreline entry for beginning to advanced divers, and small skiffs can be launched from the MPA's sheltered cove for access to nearby reefs for recreational abalone diving and fishing. This area is also easily accessed by commercial fishermen and sea urchin divers from the nearby fishing ports of Albion and Fort Bragg.

Published references related to use of this MPA as a research tool: 41

Site name: Van Damme State Marine Conservation Area

Year established: 1970
Approximate Area: 0.02 nm^2 **Approximate Shoreline length:** 0.26 nm
Approximate Depth range (feet): 0 to 18

Habitat types: Headlands and protected coves with sand and cobble beaches. Offshore substrate consists of rock reefs and sand bottom. Habitats include kelp beds, sand beaches, cobble beaches, rocky intertidal, and a coastal tributary.

Surrounding habitat types: Headlands with small pockets of sand beaches to the north and south of this area with intertidal and subtidal substrate composed of mixed hard and soft bottom.

Summary of existing regulations:
Only the following species may be taken recreationally: finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.

Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae (except giant kelp and bull kelp) and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.

Primary objectives: This site met the criteria for State Park-Underwater Park established by the California State Parks and Recreation Commission. These criteria include marine area natural, recreational, cultural, and scenic underwater resources, as well as its proximity to an established terrestrial park. The Department of Parks and Recreation's General Plan of 1994 states "Underwater resources offshore at Van Damme Sate Park are of statewide significance including diverse habitats associated with tidepools, numerous rock sea stacks, and diverse underwater topography. Biologically this area is valuable due to the diversity of habitats and marine invertebrates."

Existing enforcement: The area is currently patrolled by State Park rangers and Department wardens.

Baseline and ongoing monitoring and research studies: The Department of Parks and Recreation conducts underwater biotic inventories of its underwater park units and accompanying species lists are available (DeMartini1990). In response to the Marine Life Protection Act and the Marine Managed Areas Improvement Act, The Department of Parks and Recreation is currently reviewing and evaluating State Park Underwater Parks and Reserves. This area has been the site of several baseline and ongoing studies conducted by The Department throughout the years, most notably red sea urchin, *Strongylocentrotus franciscanus*, red abalone, *Haliotis rufescens* and bull kelp, *Nererocystis luetkeana.*

Basic Evaluation: The area presently offers little in the way of resource protection since only certain invertebrates are protected from harvest. However, Van Damme is a highly used marine area providing recreation, education, and research opportunities. Several shallow- water reefs are easily accessible either by swimming from shore or using small watercraft, which can be easily launched from Van Damme beach. This MPA is one of the most popular destinations in the state for recreational abalone diving and shore-picking and is often the site of dive-club organized spearfishing competitions. This

area is also easily accessed by commercial fishermen and sea urchin divers from the nearby fishing ports of Albion and Fort Bragg. The boundaries of the existing area are currently difficult to recognize.

Published references related to use of this MPA as a research tool: 36, 44, 63, 79, 80, 81, 82, 83, 84

Site name: Manchester and Arena Rock State Marine Conservation Area

Year established: 1970
Approximate Area: 3.95 nm^2 **Approximate Shoreline length:** 3.23 nm
Approximate Depth range (feet): 0 to 125

Habitat types: Sandy bottom dominates with exposed wash rock and rocky pinnacles.

Surrounding habitat types: This coastline is notable for its unique geomorphology. The San Andreas Fault re-enters the ocean at the mouth of Alder Creek at the northern boundary of the MPA. The coastline above this point is characterized by steep headlands with accompanying narrow bands of rocky intertidal, a subtidal substrate of mixed soft and hard bottom, and numerous nearshore rock islands. Coastal streams have cut through the marine terrace at various points creating wetland and riparian habitat and pockets of sandy beaches. Directly to the south at Arena Cove and Mote Creek are highly productive intertidal reefs composed of sedimentary rock. Large portions of sand beach are also found in this area. Offshore of Iversen Point, approximately 10 miles south of Point Arena, is Saunders Reef which contains one of the largest stands of bull kelp, *Nererocystis luetkeana*, along the north coast.

Summary of existing regulations:
Only the following species may be taken recreationally: finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobsters, ghost shrimp, sea urchins, and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.

Only the following species may be taken commercially: finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae (except giant kelp and bull kelp) and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.

Primary objectives for establishment of site: This site was originally designated as a State Park and State Underwater Park. State parks are designated to preserve outstanding natural, scenic, and cultural values, indigenous aquatic and terrestrial fauna and flora, and the most significant examples of such ecological regions. (Public Resources Code 5019.53 and Title 14, Section 4752)

Existing enforcement: The Department of Parks and Recreation works in cooperation with the Department of Fish and Game, assimilating its regulations in the state park system.

Baseline and ongoing monitoring and research studies: The State Parks System conducts periodic resource evaluations.

Basic Evaluation: The subtidal habitat consists of primarily sandy bottom, with the exception of the Arena Rock area. The primary objective in originally establishing this site as a state park was to preserve a significant example of the geomorphology within this ecological region. This goal, separate from any biological goal, is met under the current designation. Enforcement in this region is generally difficult due to the remoteness of the site but can be accomplished with the Department's long-range patrol vessels.